HOLLAND & KNIGHT LLP

One Atlantic Center
1201 West Peachtree Street, N.E.
Suite 2000
Atlanta, Georgia 30309-3400

404-817-8500
404-881-0470 Fax
www.hklaw.com

RECEIVED
CENTRAL FAX CENTER
OCT 0 2 2003
OFFICIAL

Annapolis
Atlanta
Bethesda
Boston
Bradenton
Chicago*
Fort Lauderdale
Jacksonville
Lakeland
Los Angeles
Miami
New York
Northern Virginia
Orlando
Portland
Providence
St. Petersburg
San Antonio
San Francisco
Seattle
Tallahassee
Tampa
Washington, D.C.
West Palm Beach

International Offices:
Caracas**
Helsinki
Mexico City
Rio de Janeiro
Sao Paulo
Tel Aviv**
Tokyo

*Holland & Knight LLC
**Representative Office

FACSIMILE

TO:		
Commissioner	United States Patent and Trademark Office	703-872-9306
NAME	COMPANY/FIRM	FAX NUMBER
		703-308-1235
CITY	STATE	(TELEPHONE NUMBER)

FROM:		
Patrea L. Pabst	404-817-8473	15
NAME	TELEPHONE	TOTAL PAGES (Including Cover Sheet)

FOR THE RECORD:			
DATE: October 1, 2003	URGENCY: ☐ SUPER RUSH	☐ RUSH	☐ REGULAR
FAXED BY:	FILE #: 078230.28	CLIENT NAME: NORT 100	
CONFIRMED: ☐ YES ☐ NO	NAME: Peggy	TIME:	

If you did not receive all of the pages or find that they are illegible, please call **(404) 817-8500**

MESSAGE:

Applicant:	Christopher William Ogden, James Adshead, Anna Maria Kessling, and Bijan Khoubehi		
Serial No.:	09/933,548	Art Unit:	1634
Filed:	August 20, 2001	Examiner:	S.A. Sakelaris
For:	*DIAGNOSIS AND TREATMENT OF PROSTATE CANCER*		

1249892_v1

PTO/SB/21 (01-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission: 14

Application Number	09/933,548
Filing Date	August 20, 2001
First Named Inventor	Christopher W. Ogden
Art Unit	1634
Examiner Name	S. A. Sakelaris
Attorney Docket Number	NORT 100

ENCLOSURES *(Check all that apply)*

- [x] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Response to Missing Parts/ Incomplete Application
  - [ ] Response to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation
- [ ] Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
- [ ] After Allowance Communication to Group
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
- [ ] Proprietary Information
- [ ] Status Letter
- [x] Other Enclosure(s) (please identify below):

Petition for Reconsideration of Restriction Requirement

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual	Patrea L. Pabst Esq., Reg. No. 31,284 Holland & Knight LLP Suite 2000, One Atlantic Center; 1201 West Peachtree Street, N.E.; Atlanta, GA 30309-3400
Signature	
Date	October 1, 2003

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231 on this date: October 1 2003

Typed or printed	Peggy Bailey		
Signature	Peggy Bailey	Date	October 1 2003

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/17 (01-03)
Approved for use through 04/30/2003. OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 100.00

Complete if Known	
Application Number	09/933,548
Filing Date	August 20, 2001
First Named Inventor	Christopher William Ogden et a
Examiner Name	S. A. Sakelaris
Art Unit	1634
Attorney Docket No.	NORT 100

METHOD OF PAYMENT *(check all that apply)*

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☑ Deposit Account:

Deposit Account Number: 50-1868

Deposit Account Name: Holland & Knight LLP

The Commissioner is authorized to: *(check all that apply)*

☐ Charge fee(s) indicated below ☑ Credit any overpayments

☑ Charge any additional fee(s) during the pendency of this application

☑ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) ($)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims		Fee from below		Fee Paid
Total Claims	40	-47	0	x 0 =	0.
Independent Claims	9	- 10** =	0	x 0 =	0.
Multiple Dependent				=	0.

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($) 0.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for *ex parte* reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	100.00
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid SUBTOTAL (3) ($) 100.00

SUBMITTED BY				(Complete if applicable)	
Name (Print/Type)	Patrea L. Pabst	Registration No. (Attorney/Agent)	31,284	Telephone	(404) 817-8473
Signature				Date	October 1, 2003

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Commissioner for Patents, Washington, DC 20231.**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Christopher William Ogden, James Adshead, Anna Maria Kessling, and Bijan Khoubehi	
Serial No.:	09/933,548	Group Art Unit: 1634
Filed:	August 20, 2001	Examiner: S.A. Salcelaris
For:	*DIAGNOSIS AND TREATMENT OF PROSTATE CANCER*	

Assistant Commissioner for Patents
Washington, D.C. 20231

PETITION FOR RECONSIDERATION OF RESTRICTION REQUIREMENT

Sir:

Pursuant to 37 C.F.R. § 1.144, applicants petition the Group Director to review the restriction requirement set forth in the Office Action mailed on April 22, 2003, as maintained in the office action mailed July 1, 2003. No fee is believed to be due. However, the Commissioner is authorized to charge any fees that may be required to our Deposit Order Account No. 50-1868, if necessary.

The April 22, 2003 Restriction Requirement

The Office Action mailed April 22, 2003, divided the claims into 10 groups. The claims are appended for the convenience of the Commissioner (**claims as amended in the response filed on May 22, 2003 are attached in an Appendix**).

In the response filed May 22, 2003, applicants elected for prosecution group I,

NORT 100
078230/00028

claims 1-4, 5-9, and 15-16, drawn to a method of determining susceptibility, diagnosing prostate cancer and predicting patient outcome through nucleic acid analysis. The applicants elected Pax 2 protein as the species for the prosecution of the Group II-X claims. Claim 38 was canceled. The claims as proposed to be amended in the response filed on May 22, 2003, correct multi-dependency.

Group II included claims 1-4, 10, 11 and 13-16, drawn to a method of determining susceptibility, diagnosing prostate cancer and predicting patient outcome through protein analysis;

Group III included claims 1-4, 10-13, 15 and 16, drawn to a method of determining susceptibility, diagnosing prostate cancer and predicting patient outcome through antibody analysis;

Group IV included claims 17, 18, 21 and 22, drawn to a method of using a specific agent to determine the level of a nucleic acid;

Group V included claims 17, 19 and 20-22, drawn to a method of using a specific agent to determine the level of a protein;

Group VI included claim 23, drawn to a kit for detecting nucleic acids;

Group VII included claim 23, drawn to a kit for detecting proteins;

Group VIII included claims 24-29 and 37, drawn to a method of treating prostate cancer through nucleic acid administration;

Group IX included claims 30-35, drawn to a nucleic acid construct; and

Group X included claims 36 and 38, drawn to a pharmaceutical composition for treating prostate cancer.

Claims 1-16 and 37 are drawn to a method of determining the susceptibility of, diagnosing or predicting the relative prospects of a particular outcome of prostate cancer by determining the level of Pax 2 protein or nucleic acid. Claims 17-22 are drawn to the use of an agent which is capable of use in determining the level of Pax 2 protein or nucleic acid. Claim 23 is drawn to a kit comprising an agent is capable of use in determining the level of Pax 2 protein or nucleic acid and a control sample. Claims 24-28 are drawn to a method of treating prostate cancer in a patient comprising the step of administering to the patient an agent which selectively prevents the function of Pax 2. Claim 29 is drawn to use of an agent which selectively prevents the function of Pax 2 in the manufacture of a medicament for treating prostate cancer. Claims 30-36 are dawn to a genetic construct and a pharmaceutical composition comprising a nucleic acid encoding a molecule capable of preventing the function of Pax 2 expressed in a prostate cell.

It is well established that the same claims cannot be divided into separate inventions. The examiner therefore clearly erred when he placed claims 1-16 into three separate groups, and claims 17-22 into two groups.

This application is a U.S. filing of a PCT application. Under PCT Rule 13, if the claims are so linked as to form a single general inventive concept, a lack of unity of

invention objection is improper (See PCT Rule 13; see also MPEP § 1893.03(d)). The Examiner imposed the restriction on the basis that the claims are drawn to **nucleic acids, proteins** and **antibodies** with no consideration of the relationships between the specific nucleic acids, proteins and antibodies defined in the claims. This is clearly improper. The novel and inventive feature of the claims are **Pax 2 proteins, nucleic acids, or antibodies to the proteins** rather than proteins nucleic acids, or antibodies at large. As described at p. 5, line 25 to p. 6, line 4 and p. 57, line 25 to p. 65, line 9 (Example 1), the applicants found in the first time that Pax 2 protein is associated with prostate cancer. This finding led the applicants to make and use the compositions and methods for determining the susceptibility, diagnosing, and treating prostate cancer, which requires the determination of the level of the Pax 2 protein, nucleic acid, or an antibody to the Pax 2 protein.

Contrary to the Examiner's assertion, the proteins, nucleic acids and antibodies recited or encompassed in the claims share a common technical feature as required by PCT Rule 13.2. One of ordinary skill in the art would recognize that the Pax 2 protein, nucleic acid, and the antibody to the protein are specifically interrelated. One of ordinary skill in the art would appreciate that the PAX 2 nucleic acid dictates the composition and structure of the Pax 2 protein, which, by definition, dictates the structure and composition of its antibody. Therefore, this technical feature provides unity to claims 1-37, including the alternatives Pax 2 proteins, nucleic acids, and

antibodies according to PCT Rule 13.2 (see PCT Article 3(4)(iii) and 17(3)(a), PCT Rules 3.1 and 13.2; see also MPEP §1850, particularly §1850(D)). As such, the restriction requirement is clearly improper.

Claims must be both patentably distinct and independent in order to be subject to restriction requirement. Definitions are provided by CHISUM 4:12.03[1]: The Patent and Trademark Office defines "independent" as meaning "not dependent," which in turn means "there is no disclosed relationship between the two or more subjects disclosed." Examples include species not usable together as disclosed or process and apparatus incapable of being used in practicing the process. The Office cites the extreme example of a shoe and a locomotive bearing. The Office defines "distinct" as meaning related or dependent but "capable of separate manufacture, use or sale as claimed" and "patentable over each other." Examples of dependent and distinct inventions include combination and subcombination, process and apparatus, process and product, and composition and process of use under appropriate circumstances.

In an election of species, only the elected species is initially examined. Once this claim is determined to be allowable, the examiner must search the remaining species.

Further, the MPEP states that species, "while usually independent, may be related under the particular disclosure. Where inventions as disclosed and claimed are both (A) species under a claimed genus and (B) related, then the question of restriction

must be determined by both the practice applicable to election of species and the practice applicable to other types of restrictions such as those covered in MPEP 806.05-806.05(i)." (MPEP 806.04(b))

The MPEP provides that if an applicant discloses multiple species but includes only generic claims, election between species is normally not required. If an applicant discloses multiple species and includes claims restricted to those species, the applicant will be required to elect one species. He will then be restricted to those claims that read on that elected species unless a generic claim is found to be allowable. In the latter event, the applicant may include further claims to additional species (up to a reasonable number) provided that such additional claims "are written in dependent form (Rule 75), or otherwise include all the limitations of the generic claim."

The restriction requirement, by creating separate inventions out of the generic claims, makes it impossible to examine the claims in their entirety, and forces the applicants to restrict it to a single species.

The examiner has no legal authority to require applicants to restrict a generic claim to a single species, absent prior art or lack of enablement.

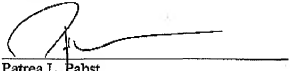
Summary

The current restriction imposed on the claims of the present invention is improper. This restriction is inconsistent with the guidelines for restriction practice delineated by the MPEP and PCT rules. Upholding this restriction requirement would

be to allow the examiner to impose limitations on the claims ***which are not now present.***

Favorable consideration of this petition is earnestly solicited.

Respectfully submitted,



Patrea L. Pabst
Reg. No. 31,284

Date: October 1, 2003
HOLLAND & KNIGHT, LLP
One Atlantic Center, Suite 2000
1201 West Peachtree Street
Atlanta, Georgia 30309-3400
(404) 817-8473
(404) 817-8588 (fax)

APPENDIX: *Clean Copy of Claims as Pending*

1. (original) A method of determining the susceptibility of a human patient to prostate cancer comprising the steps of (i) obtaining a sample containing nucleic acid and/or protein from prostate cells of the patient; and (ii) determining whether the sample contains a level of Pax 2 nucleic acid or protein associated with prostate cancer.

2. (original) A method of diagnosing prostate cancer in a human patient comprising the steps of (i) obtaining a sample containing nucleic acid and/or protein from prostate cells of the patient; and (ii) determining whether the sample contains a level of Pax 2 nucleic acid or protein associated with prostate cancer.

3. (original) A method of predicting the relative prospects of a particular outcome of prostate cancer in a human patient comprising the steps of (i) obtaining a sample containing nucleic acid and/or protein from prostate cells of the patient; and (ii) determining whether the sample contains a level of Pax 2 nucleic acid or protein associated with prostate cancer.

4. (currently amended) A method according to any of claims 1, 2 or 3 wherein the cancer is invasive.

5. (currently amended) A method according to wherein the sample contains nucleic acid and the level of Pax 2 nucleic acid is measured by contacting the nucleic acid with a nucleic acid which hybridises selectively to Pax 2 nucleic acid.

6. (original) A method according to claim 5 wherein the sample contains

mRNA and the nucleic acid selectively hybridises to Pax 2 mRNA.

7. (currently amended) A method according to claim 5 ~~or 6~~ wherein the nucleic acid which hybridises is detectably labelled.

8. (currently amended) A method according to claim 5 wherein the nucleic acid which selectively hybridises is detectably labelled.

9. (currently amended) A method according to claim 5 wherein the nucleic acid which selectively hybridises is suitable for use in a nucleic acid amplification reaction.

10. (currently amended) A method according to any of claims 1, 2 or 3 wherein the sample contains protein and the level of Pax 2 protein is measured.

11. (original) A method according to claim 10 wherein the level of protein is measured by contacting the protein with a molecule which selectively binds to Pax 2 protein.

12. (original) A method according to claim 11 wherein the selective binding molecule is an antibody or fragment or derivative thereof or an antibody-like molecule.

13. (original) A method according to claim 11 or 12 wherein the selective binding molecule comprises a detectable label.

14. (original) A method according to claim 10 wherein the level of Pax 2 is measured by selectively assaying its activity in the sample.

15. (currently amended) A method according to any of claims 1, 2 or 3 wherein the sample is a sample of the tissue in which prostate cancer is suspected or in which

prostate cancer may be or has been found, or contains cells from said tissue.

16. (original) A method according to claim 15 wherein the sample is any one of urine, semen, blood or lymphatic circulation.

17. (currently amended) A method of diagnosing prostate cancer comprising administering an agent which is capable of use in determining the level of Pax 2 protein or nucleic acid in a sample in the manufacture of a reagent for diagnosing prostate cancer.

18. (currently amended) The method of claim 17 wherein the agent is a nucleic acid which selectively hybridises to Pax 2 nucleic acid.

19. (currently amended) The method of claim 18 wherein the agent is a molecule which selectively binds to Pax 2 protein.

20. (currently amended) The method of claim 19 wherein the agent is useful in selectively assaying the activity of Pax 2 protein.

23. (currently amended) A kit for diagnosing prostate cancer comprising an agent which is capable of use in determining the level of Pax 2 protein or nucleic acid in a sample and a control sample wherein the control sample may be a negative control not comprising a detectable amount of Pax 2 nucleic acid or protein, or it may be a positive control comprising a detectable amount of Pax 2 nucleic acid or protein.

24. (original) A method of treating prostate cancer comprising the step of administering to the patient an agent which selectively prevents the function of Pax 2.

25. (original) A method according to claim 24 wherein the agent prevents the expression of Pax 2.

26. (original) A method according to claim 24 wherein the agent inhibits the activity of Pax 2.

27. (original) A method according to claim 26 wherein the agent is an antisense molecule.

28. (original) A method according to claim 26 wherein the agent is a ribozyme.

29. (currently amended) A method of treating prostate cancer comprising administering an agent which selectively prevents the function of Pax2.

30. (original) A genetic construct a nucleic acid encoding a molecule capable of preventing the function of Pax 2 expressed in a prostate cell.

31. (original) A genetic construct according to claim 30 adapted for delivery to a human prostate cell.

32. (original) A genetic construct according to claim 31 wherein the adaptation allows delivery to a prostate cancer cell.

33. (currently amended) A genetic construct according to claim 31 comprising means to selectively deliver the nucleic acid to a prostate cancer cell.

34. (currently amended) A genetic construct according to claim 30 comprising means to selectively express the nucleic acid encoding a molecule in a prostate cancer cell.

36. (currently amended) A pharmaceutical composition comprising a genetic construct comprising a nucleic acid encoding a molecule capable of preventing the function of Pax 2 expressed in a prostate cell and a pharmaceutically acceptable carrier.

37. (currently amended) The method of claim 2 wherein the step of determining whether the sample contains a level of Pax 2 protein associated with prostate cancer is carried out using western blotting.

1250510_v1